

## What is Claimed

1. A furnace blower housing comprising:  
a body having a tubular exhaust transition, the exhaust transition being comprised of first and second sections and having first and second ends and a length therebetween;  
5                   the first end being an inlet, the inlet being adjacent to the body;  
                      the second end being an outlet, the outlet being generally circular; and  
                      the first section being of single piece construction with the body and the second section being adapted and configured to attach to the first  
10                   section to form the tubular exhaust transition and the circular outlet.
  
2. The housing of claim 1, wherein:  
                      the first end is generally rectangular and the exhaust transition changes from being generally rectangular at the first end to being generally circular at the second end as the exhaust transition extends from the first end  
5                   to the second end.
  
3. The housing of claim 2, wherein:  
                      the second section extends along the entire length of the exhaust transition from the inlet to the outlet and has an inlet end that is generally flat and forms a portion of the generally rectangular inlet.
  
4. The housing of claim 3, wherein:  
                      the second section inlet end covers a back wall of the body and has an opening to allow air to flow into the housing.
  
5. The housing of claim 1, wherein:  
                      a portion of the body adjacent the inlet is curved outwardly from the body as the portion extends towards the inlet; and

the first section has opposite outlet and inlet ends, the outlet end  
 5 forming a portion of the outlet and the inlet end being adjacent the body and  
 forming a portion of the inlet, the inlet end curving outwardly from the body  
 and being complementary to the curved body portion.

6. The housing of claim 1, wherein:

the second section is attached to the first section to form the  
 tubular exhaust transition by crimping the second section and the first section  
 together.

7. A furnace blower housing comprising:

a body having a front wall and a back wall separated by a volute  
 sidewall, the back wall having an opening that leads to a cavity in the body  
 defined by the front and back wall and the sidewall;

5 the cavity being configured and adapted to receive a fan that is  
 rotated in the cavity to generate a flow of air through the housing;

a throat in the body leading to an exhaust transition comprised  
 of first and second sections, the exhaust transition forming an outlet;

the first exhaust transition section being formed monolithically  
 10 from the body and forming a first portion of the outlet;  
 the second exhaust transition section forming a second portion  
 of the outlet, the second exhaust transition section being complementary to  
 the first exhaust transition section and configured and adapted to attach to the  
 first exhaust transition section to form the exhaust transition and the outlet;

15 and

the flow of air exits the housing through the exhaust transition  
 and the outlet.

8. The housing of claim 7, wherein:

the first and second transition sections form a generally circular  
 outlet.

9. The housing of claim 8, wherein:  
the first transition section is formed from the sidewall and the front wall of the body.

10. The housing of claim 9, wherein:  
the exhaust transition extends axially away from the back wall as the transition section extends outwardly from the body so that the outlet is spaced from the back wall.

11. The housing of claim 10, wherein:  
the second transition section has opposite outlet and inlet ends and opposite side edges, the second transition section is substantially flat and generally parallel to the back wall at the inlet end and progressively curves  
5 outwardly between the opposite side edges as the second transition section extends from the inlet end to the outlet end to form the second portion of the generally circular outlet.

12. The housing of claim 11, wherein:  
the inlet end forms a back plate that attaches to the back wall and covers the opening in the back wall, the back plate having an opening to allow air to enter the cavity through the back plate opening.

13. The housing of claim 10, wherein:  
the first transition section has opposite outlet and inlet ends and opposite side edges, the outlet end being the first portion of the outlet and the inlet end being part of the throat, the first transition section progressively  
5 curves outwardly between the opposite side edges as the first transition section extends from the inlet end to the outlet end to form the first portion of the generally circular outlet.

14. The housing of claim 13, wherein:

a portion of the front wall forms a pretransition section adjacent the throat and the inlet end, the pretransition section progressively curves outwardly from the front wall as the pretransition section extends towards the throat and the inlet end, and a portion of the throat adjacent the pretransition section and a portion of the inlet end adjacent the throat are curved outwardly from the front wall and align with and are complementary to the pretransition section.

15. The housing of claim 13, wherein:

the second transition section has opposite first and second ends and opposite side edges, the second transition section being substantially flat and generally parallel to the back wall at the second end and progressively curving outwardly between the opposite side edges as the second transition section extends from the second end to the first end to form the second portion of the generally circular outlet.

16. The housing of claim 10, wherein:

the first transition section has opposite outlet and inlet ends and opposite side edges, the first transition section side edges having attachment members;

the second transition section has opposite outlet and inlet ends and opposite side edges, the second transition section side edges having attachment members complementary to the first transition section attachment members; and

the second transition section attaches to the first transition section along the first and second transition section attachment members.

17. The housing of claim 16, wherein:

the second transition section attachment members are crimped to the first transition section attachment members.

18. A method of transitioning a furnace blower housing outlet so that the housing can be directly attached to a circular exhaust pipe, the method comprising the steps of:

- 5 providing the blower housing with an exhaust transition having an inlet adjacent the housing, a circular outlet, and a length therebetween, the exhaust transition being comprised of first and second sections;
- forming the first section as a unitary piece of the housing;
- forming the second section complementary to the first section and adapted and configured to attach to the first section to form the exhaust
- 10 transition and the circular outlet; and
- attaching the second section to the first section.

19. The method of claim 18, wherein:  
the exhaust discharge is formed with a generally rectangular inlet and progressively changes from being generally rectangular at the inlet to being generally circular at the outlet.

20. The method of claim 19, wherein the step of attaching the second section to the first pipe section is further comprised of the step of:  
crimping the second section to the first section.